

What is claimed is:

1. An OFDM signal transmission system comprising:

a first reception block equipped with a first
5 reception section that receives a first transmission
signal sent from a transmission station that transmits
a modulated signal modulated according to an OFDM
modulation system using a first frequency band, a tuning
section that tunes the first received signal, a first
10 demodulation section that demodulates the first received
signal and an output section; and
a second reception block equipped with a second reception
section capable of receiving a second transmission signal
sent from a transmission/reception station that carries
15 out reception using a second frequency band which is
different from the first frequency band and a second
demodulation section that demodulates the second received
signal, wherein the identification information of
transmission/reception station included in the second
20 received signal and/or information to perform at least
one of tuning or demodulation of said first transmission
signal is received, transmission information to perform
at least one of tuning or demodulation of the first
transmission signal is obtained, at least one of tuning
25 or demodulation of the first received signal is performed
at said first demodulation section.

2. An OFDM signal transmission system comprising:

- a first reception block equipped with a first reception section that receives a first transmission signal sent from a transmission station that transmits
5 a modulated signal modulated according to an OFDM modulation system using a first frequency band, a tuning section that tunes the first received signal, a first demodulation section that demodulates the first received signal and an output section; and
10 a second reception block equipped with a second reception section capable of receiving a second transmission signal sent from a transmission/reception station that carries out reception using a second frequency band which is different from the first frequency
15 band and a second demodulation section that demodulates the second received signal, wherein the identification information of transmission/reception station included in the second received signal and/or information to perform tuning and/or demodulation of said first
20 transmission signal is received, transmission information to perform tuning and/or demodulation of the first transmission signal is obtained, tuning and/or demodulation of the first received signal is performed at said tuning section and/or said first demodulation
25 section.

3. An OFDM signal transmission system comprising:

a first reception block equipped with a first reception section that receives a first transmission signal sent from a transmission station that transmits a modulated signal modulated according to an OFDM modulation system using a first frequency band, a tuning section that tunes the first received signal, a first demodulation section that demodulates the first received signal and an output section; and

a second reception block equipped with a second
10 reception section capable of receiving a second
transmission signal sent from a transmission/reception
station that carries out reception using a second
frequency band which is different from the first frequency
band and a second demodulation section that demodulates
15 the second received signal, wherein the identification
information of transmission/reception station included
in the second received signal and/or information to
perform tuning and/or demodulation of said first
transmission signal is received, transmission
20 information to perform tuning and/or demodulation of the
first transmission signal is obtained, tuning and/or
demodulation of the first received signal is performed
at said tuning section and/or said first demodulation
section, the demodulation data is displayed on the data
25 display section.

4. A portable terminal comprising:

receiving means;
barcode forming means for forming barcodes; and
displaying means, wherein said barcode forming
means forms a barcode from the data received by said
5 receiving means and said displaying means displays said
formed barcode.

5. The portable terminal according to claim 4, further
comprising detecting means for detecting light or a signal
10 from a barcode reader provided near said displaying means.

6. The portable terminal according to claim 5, wherein
barcodes displayed on said displaying means are updated
one by one according to the detection result of said
15 detecting means.

7. A portable terminal comprising:
receiving means;
barcode forming means for forming barcodes based
20 on a received signal; and
displaying means including a main display section
and a sub-display section, wherein said barcode is
displayed on said sub-display section.

25 8. The portable terminal according to claim 7, wherein
said sub-display section has higher resolution than said
main display section.

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14. The portable terminal according to claim 11, wherein timing of updating the display of barcode patterns is selected so that one-dimensional barcodes to be displayed on the sub-display section and two-dimensional barcodes to be displayed on the main display section have the same amount of information displayed per unit time.

15. A portable terminal comprising:
receiving means;
10 barcode forming means for forming barcodes based on a received signal; and
displaying means for displaying said barcodes, wherein when barcodes are displayed a plurality of times on said display section, barcodes are displayed a plurality of times with predetermined non-display periods inserted between barcode display periods.

16. The portable terminal according to claim 15, wherein said barcode display period is selected to be longer than said non-display period.

17. The portable terminal according to claim 15, wherein a plurality of barcodes is formed for each of a plurality of pieces of information, each piece of information is displayed with a plurality of barcodes with a predetermined non-display period inserted between barcode display periods and the non-display period

between barcodes corresponding to a break point of information is made longer than the non-display period within each piece of information.

5 18. A portable terminal comprising:

receiving means;

barcode forming means for forming barcodes based on a received signal; and

displaying means for displaying said barcode,

10 wherein when displaying section in said displaying means displays barcodes a plurality of times, the start part of the barcode shows a display order number indicating the displaying order and a total number of barcodes displayed.

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19. A portable terminal comprising:

receiving means;

barcode forming means for forming barcodes based on a received signal;

20 displaying means for displaying said barcode; and

a barcode display switch to display a barcode on said displaying means, wherein when said barcode display switch is operated, an entry of a preset password is requested and no barcode is displayed when a correct
25 password is not entered.

20. The portable terminal according to claim 4, further

21. A portable terminal comprising:

local radio communicating means, wherein the local radio communicating means searches for the received identification information from the data received by said receiving means and said displaying means displays the searched data as a barcode.

20 a portable terminal;
 an information transmission apparatus that sends
product information or service information to said
portable terminal; and

a distribution control apparatus that controls electronic commercial transaction information, wherein said portable terminal receives product information or service information through said information transmission apparatus and receives auxiliary

information on said product information or service
information from said distribution control apparatus.

23. The electronic commerce system according to claim
5 22, wherein said product information or service
information sent by said information transmission
apparatus is broadcast signals and said portable terminal
performs bi-directional communication with said
distribution control apparatus.

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24. The electronic commerce system according to claim
22, wherein said auxiliary information is information
suitable for the portable terminal or the portable
terminal user.

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25. An electronic commerce system comprising:

a portable terminal;

a shop terminal equipped with a barcode reader
provided at a shop where products are delivered; and

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a distribution control apparatus that controls
electronic commercial transaction information, wherein
said portable terminal displays the product information,
service information or information on commercial
transaction received from said distribution control
25 apparatus as barcodes, said barcode reader reads barcodes
displayed on the portable terminal, said shop terminal
or said distribution control apparatus executes

26. An electronic commerce system comprising:

a shop terminal equipped with a barcode reader and a collating apparatus provided at a shop where products are delivered; and

an information transmission apparatus that

10 transmits product information by radio, wherein said
information transmission apparatus sends said product
information by radio to both said portable terminal and
said shop terminal, said portable terminal displays data
according to the received product information on the
15 display section as a barcode, said shop terminal reads
the barcode displayed by said barcode reader on the
portable terminal and said collating apparatus collates
the information of the barcode read by the barcode reader
with the product information received from said
20 information transmission apparatus.

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a portable terminal;
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a shop terminal equipped with a barcode reader and
25 a collating apparatus provided at a shop where products
are delivered;

an information transmission apparatus that

transmits product information or service information to said portable terminal; and

a distribution control apparatus that controls electronic commercial transaction information, wherein
5 said portable terminal displays product information received from said information transmission apparatus or information on the product selected by the portable terminal user as a barcode, said barcode reader reads the barcode displayed on the portable terminal, said
10 collating apparatus collates the information of the barcode read by the barcode reader with the control information sent from said distribution control apparatus and sends the commercial transaction information to said distribution control apparatus and said distribution
15 control apparatus changes the control information based on the commercial transaction information.

28. The electronic commerce system according to claim 27, wherein said information transmission apparatus sends
20 product information according to the position of said portable terminal and/or time to said portable terminal.

29. The electronic commerce system according to claim 27, wherein said shop terminal has a database and said
25 distribution control apparatus stores product information selected by said portable terminal user in the database of the shop selected by said portable terminal

30. The electronic commerce system according to claim 27, wherein the product information sent from said information transmission apparatus to said portable terminal includes an electricity bill, telephone bill, gas bill or water bill.

32. An electronic commerce system comprising:
a portable terminal; and
15 a shop terminal equipped with a barcode reader
provided at a shop where products are delivered, wherein
said portable terminal includes a reading section that
reads information stored in a bridge medium, reads product
information stored in said bridge medium, displays the
20 information on said product information on the display
section as a barcode, said shop terminal reads the barcode
displayed on said portable terminal from said barcode
reader and conducts commercial transaction based on the
read information.

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33. The electronic commerce system according to claim 32, wherein said bridge medium includes encryption

processing means and said portable terminal reads encrypted product information and displays the information with a barcode.

5 34. An electronic commerce system comprising:

a portable terminal;

a shop terminal equipped with a barcode reader and a collating apparatus provided at a shop where products are delivered;

10 an information transmission apparatus that transmits product information to said portable terminal; and

a distribution control apparatus that controls electronic commercial transaction information that
15 controls electronic commercial transaction information, wherein said distribution control apparatus sends a product purchasing program and product information in storage to said portable terminal through said
information transmission apparatus, said portable
20 terminal displays product related information formed according to said received product purchasing program and product information on the display section, displays the product related information selected by the portable terminal user with reference to the product related
25 information displayed on the display section as a barcode on the display section, said barcode reader reads the barcode displayed on the portable terminal and said

collating apparatus collates the barcode information read by the barcode reader with the control information sent from said distribution control apparatus.

5 35. An electronic commerce system that uses data displayed with a barcode as electronic money.

36. An electronic commerce system comprising:

10 a portable terminal;
a shop terminal; and
a distribution control apparatus, wherein
processing of purchase ordering of a product or service
is performed with the distribution control apparatus
beforehand, the shop terminal receives information
15 necessary for settlement processing from the distribution
control apparatus beforehand when the portable terminal
user visits the shop to conduct settlement processing,
and displays information necessary for settlement
processing on the display section of the portable terminal
20 as a barcode when the portable terminal user visits the
shop, the barcode reader at the shop terminal reads the
barcode, collates the content of the barcode read with
the information necessary for the settlement processing
received by the shop terminal beforehand and conducts
25 settlement processing.

37. The electronic commerce system according to claim

36, wherein the information necessary for said settlement processing includes time information when purchase order processing is conducted between said portable terminal and said distribution control apparatus.

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38. The electronic commerce system according to claim 36, wherein the portable terminal encrypts information necessary for settlement processing and displays the encrypted information with a barcode.

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39. The electronic commerce system according to claim 36, wherein the distribution control apparatus encrypts information necessary for settlement processing using a predetermined encryption key and sends the encrypted

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information to the portable terminal, the portable terminal displays the information necessary for the encrypted settlement with a barcode, the shop terminal sends the information read from the barcode to the distribution control apparatus, the distribution control

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apparatus decrypts the information received from the shop terminal using the own encryption key and authenticates the settlement.

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40. The electronic commerce system according to claim 36, wherein the distribution control apparatus adds signature data to information necessary for settlement and sends the information to the portable terminal and

shop terminal.

41. The electronic commerce system according to claim 36, wherein the portable terminal and shop terminal can
5 directly communicate with each other by radio and the shop terminal rewrites the balance data after settlement of the portable terminal by radio.

42. An admission control system comprising:
10 a portable terminal;
an admission control terminal equipped with a barcode reader and collating apparatus provided at the entrance; and
an information transmission apparatus that
15 transmits admission information to said portable terminal, wherein said portable terminal displays the admission information received from said information transmission apparatus as a barcode, said admission control terminal admits the entry of said admission applicant according
20 to the barcode information displayed on said portable terminal.

43. The admission control system according to claim 42, wherein said admission control terminal further comprises
25 communicating means for radio communication with said portable terminal and admits the entry of said applicant according to the radio communication information with

said portable terminal in addition to said barcode.

44. A local radio system comprising:

a first communication terminal; and

5 a second communication terminal capable of communicating with said first communication terminal and equipped with a barcode reader, wherein the display section of said first communication terminal displays the identification information of the first communication
10 terminal with a barcode, said second communication terminal reads the barcode displayed by said barcode reader, searches for said first communication terminal indicated by said identification information from a plurality of communication terminals and carries out
15 radio communication with said first communication terminal.

45. The local radio system according to claim 44, wherein said barcode displayed by said first communication
20 terminal is a two-dimensional barcode.